

# Corrections Technologies Offer Efficiency

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**A**s administrators of any jail or correctional center can attest, operating these facilities can present some very interesting problems. Fortunately, a variety of new technologies are available to help solve some of them.

The Prince George's County Department of Corrections, located in Upper Marlboro, Maryland, is currently testing several of these technologies. They are expected to increase our efficiency in operating a large (300,000 sq. ft.) direct supervision jail that houses an average of approximately 1,250 inmates per day.

## **Computerized Fingerprint Technology**

A major problem faced by most pre-trial facilities is how to be sure of inmates' identities. We are placed in a position of accepting, virtually on blind faith, that inmates are who they say they are—or at least who the police or sheriff's department say they are.

For a number of years, computerized fingerprint identification systems have enabled law enforcement agencies to make positive identifications of both subjects and victims. These systems can search a fingerprint or latent print against vast files of digitized information. Usually within minutes they can establish a positive I.D., provided the suspect or victim has ever been fingerprinted and is on file.

The State of Maryland is undertaking a pilot program that will involve a spin-off of its larger-scale system. Called the "Prisoner I.D. System," this new system can capture a minutia-based fingerprint from anyone, simply by having the person place a finger in a contoured device for a few seconds. A camera scans and records **the minutia, and an officer enters a personal identification number (PIN) to go along with the record.**

We intend to use this system in Prince George's County's prisoner processing area, where approximately 20,000 to 25,000 people are processed every year. The system will be used to verify the identify of inmates before they are released from the facility for whatever reason—going to court, transferring to another jurisdiction,

or being released on bond. The inmate will place a finger on the device prior to leaving. Then an officer will enter the inmate's PIN number, and the system will verify the inmate's identity.

## **Bar Code System**

We conduct at least six head counts of inmates every day, during each shift change. Our current system is cumbersome and time-consuming. In order to streamline and modernize it, we are seeking proposals for a bar code system. (For an article on Prince George's County's earlier experiments with this technology, see "Prince George's County Tests Bar Code Technology," *Large Jail Network Bulletin* Vol. 2, no. 2, October 1990.)

The "Prisoner I.D. System" can capture a minutia-based fingerprint from anyone, simply by having the person place a finger in a contoured device for a few seconds.

Bar codes are being used in many industries today to handle inventories and speed up transactions at the point of sale, as well as for other purposes.

In the system that we are planning to test, each inmate will wear an indestructible bracelet containing a bar

code. The bar code will tell us who the inmate is, where he/she is

The automated scheduling system creates daily and master rosters, tracks employee work/leave records, maintains staff training records, and can be used for "what if" forecasting exercises.

supposed to be, and whatever other information we need. The bracelet will also contain a photograph of the inmate.

The system will feature portable, hand-held scanners that will enable officers to scan a bracelet quickly to determine an inmate's identity. If an inmate is away from the housing unit in another location, such as the law library, the scanner will record the inmate's I.D. number, the date and time of leaving the unit, and the date and time of arriving at the library. For historical purposes, each transaction will be recorded on a hard disk and a printout at the central processing unit. This device will allow us to complete an accurate head count in a fraction of the time we now spend.

### **Relief Factor Management System**

Our department currently has a staff of 507 people, 340 of whom are uniformed correctional officers. The staff operate three facilities: the main correctional center, a DWI facility, and a work release center. The administrative task of scheduling such a large security staff around the clock is enormous. In

order to accomplish this task more effectively and efficiently, we have

**implemented an automated scheduling system that operates on a PC. This system provides the**

following capabilities:

- It creates daily rosters for each of the approximately sixty-two posts manned on each shift. The rosters show which employees are assigned to work which post and provide substitutions for personnel on leave.
- It maintains a database of employee information, including emergency contacts.
- It maintains a training status database, which captures mandatory and non-mandatory training requirements for various posts. The database includes training records and warns a shift commander when certifications, such as weapons or C.P.R. qualifications, are about to expire.
- It creates a master roster of all posts defined by the department. The roster automatically ladders days off evenly throughout the security force, creating sufficient posts to cover regular days off, and creates enough relief posts to cover other leave (annual, sick, administrative, or training) based on previous history.

- It maintains timesheets summarizing each employee's work/leave records for a pay period.
- It generates standard and custom management reports.
- It provides the opportunity to perform "what if" exercises, e.g., what would happen if the number of available staff were to increase/decrease, or if the inmate population fluctuated wildly.

### **Robotics**

Another technology we are pursuing involves robotics. We don't have in mind those clunky, awkward man-like creatures you've seen in grade B movies or those ray-gun gizmos that auto manufacturers use on assembly lines. The robots we are interested in are small, low-slung carts that follow a magnetic strip on the floor. They can be programmed to pick up or deliver almost anything anywhere, and they can even use elevators to go up or down to their destination.

The advantage of these machines is that they allow safe and efficient movement of supplies, food, or virtually any other material without having to tie up an officer to escort them around. The robots will stop if anything is in front of them, and they automatically recharge themselves while awaiting their next mission.

These devices are not inexpensive. However, if you often move food, laundry, or other supplies with "free" inmate labor accompanied by one or more officers (who are not "cost free"), these robots can pay for

themselves quickly, usually within two to four years.

### **CRYVAC Supplemental Food Preparation System**

Providing good food is one of the important ways jails can maintain a good attitude among the inmate population. Our food services operation has a dual mission, one that it carries out extremely well on a daily basis, and a second it fulfills whenever called upon.

The daily mission involves properly feeding approximately 1,250 inmates and 500 staff members up to three times a day. Food services staff also prepare special medical and religious diets. The menus are varied and nutritious, although of course not all our "residents" always like them.

Their secondary mission involves preparing large quantities of food

Approaches such as lease-purchase arrangements or inmate user fees may make technologies affordable.

quickly to provide meals to large numbers of county citizens in the event of an emergency situation, such as a hurricane or blizzard. The system we use, which is called a "CRYVAC" system, can produce approximately 4,500 meals every twenty-four hours.

The system features a large hot water cooker that can handle up to 650 lbs. of meat at a time and two large vat cookers, each with a 100-

gallon capacity. This system allows us to precook large quantities of food, which can then be frozen for long-term storage or kept in chiller boxes for short-term use.

The system can also produce hot food, which is placed in heavy, sealed plastic bags. These bags can be placed in insulated containers and transported to a shelter area for victims of a disaster.

The CRYVAC system is used to supplement our normal cooking method. In order to keep it operational and to make our food services economical, it is used to prepare two meals a week for the jail. Additional capacity can be achieved by expanding the number of hot water cookers and vat cookers.

Key features about this method of cooking are: it takes very few people to produce large quantities of food; meat shrinks very little during the cooking process; and it saves on utility costs

because each operation involves either hot or cold water instead of gas or oil.

### **How to Pay for Technologies**

By now, you're probably thinking that perhaps there are some good ideas here, but in our shrinking economy how will I ever afford them? Don't despair, though, because there are several approaches

that may make these technologies possible.

- **Lease-purchase arrangements:** Lease purchase arrangements, instead of outright purchases, allow you to spread the cost over three to five years.
- **Letting the inmates pay:** Consider installing a new inmate phone system that eliminates costly operator intervention. Negotiate to have a percentage of the increased profits returned to your facility, to be used in purchasing these technological improvements. Look closely at commissary sales as a way to generate fair profits. Consider user fees, which are gaining acceptability in certain settings, such as DWI and work release programs.

All things considered, if they are handled properly, new technologies can bring about big savings and improve the overall operating efficiency of many jails.

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